

*Please replace the paragraph on page 10, lines 6-11 with the following rewritten paragraph:*

02 ✓ -- In the case of a module that is formed by connecting an optical fiber to the aforesaid device, therefore, return light from the optical fiber is also based on the longitudinal multi-mode, so that oscillation of a laser beam can be restrained from being made unstable by the return light. FIG. 10 is a schematic diagram showing the coupling of output light from the laser device to a conventional optical fiber having a fiber Bragg grating, and showing the coupling of return light back to the laser device. --

#### **REMARKS**

This Amendment is submitted in response to the Office Action Mailed June 19, 2002, wherein the drawings were objected to under 37 C.F.R. § 1.83(a), wherein Claims 1, 3, 4, 9, 12, 15-17, 20, 25, and 27 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,396,861 to Shimizu, *et al.* (the "Shimizu patent"); and wherein Claims 2, 5-8, 10, 11, 13, 14, 18, 19, 21-24, 26, and 28 were rejected under 35 U.S.C. §103(a) as being obvious the Shimizu patent in view of U.S. Patent No. 6,122,299 to DeMars, *et al.* (the "DeMars patent"). Applicants address the rejections by perfecting their claim to priority under 35 U.S.C. §119(a)-(d) and removing the Shimizu patent as a reference against the claims. **Claims 1-28 are pending.**

#### **Response to the Objection to the Drawings.**

The drawings were objected to under 37 C.F.R. § 1.83(a) for not showing the light output of the laser device being coupled to an optical fiber such that light from an optical fiber is feedback to the laser. With this amendment, Applicants propose to add new FIG. 10 to show the coupling (e.g., connection) of the light output of the laser device to an optical fiber with return light feedback to the laser device. New FIG. 10 is formally provided by the attached letter to the Draftsman requesting permission to amend the drawings. Applicants also propose to add a brief description of FIG. 10 at page 9, line 13, at the end of the section entitled "BRIEF DESCRIPTION OF THE DRAWINGS," and propose to augment the paragraph at page 10, lines 6-11 to relate the description there to new FIG. 10. Applicants respectfully submit that new FIG.

10 and the above amendments to the Specification are supported by the original Specification at page 10, lines 6-11, and page 14, lines 4-15, and that no new matter is entered by new FIG. 10 and the associated amendments. Approval of FIG. 10 and entry of the associated amendments are respectfully solicited.

**Response to the Rejection of Claims 1, 3-4, 9, 12, 15-17, 20, 25 and 27 under 35 U.S.C.**

**§ 102(e)**

As indicated in sub-section (E) of M.P.E.P. §706.02(b), a rejection under 35 U.S.C. §102(e) may be overcome by perfecting Applicants' claim of priority under 35 U.S.C. §119(a)-(d) to their earlier Japanese patent application 11-162792 (referred to herein as "Applicants' priority document"). A certified copy of Applicants' priority document was filed with the Patent Office on February 25, 2000. Applicants' priority document was filed with the Japanese Patent Office on June 6, 1999, which predates the U.S. filing date of the Shimizu patent, which is October 8, 1999. An English translation of Applicants' priority document is attached herewith, along with a statement by the translator, Yuuki ONO, stating that he is knowledgeable in the English and Japanese languages, and that the attached English translation of Applicants' priority document is accurate. Applicants now antedate the Shimizu patent by showing where the rejected claims are supported by Applicants' priority document, with reference to the attached English translation.

Pending Claim 1 is supported by the priority document at the following locations:

1. page 1, lines 4-13 of the English translation (which comprises the basic structure of the claim and the 5% or less reflectance value of the low-refraction film);
2. FIG. 4 (which shows the cavity resonator, with a laminated structure formed therein);
3. FIG. 8 and pages 5 and 6 of the priority document (which support the cavity width, as discussed in greater detail below); and
4. page 10, lines 21-22 (which supports the 80% or more reflectance value of the high-reflection film).

The capability of the cavity width to only support a single *transverse* mode is supported

by Figure 8 of the priority document where the far-field pattern shows a single transverse mode, and on page 5, line 31 through page 6, line 5 of the English translation, where "transverse oscillation mode" is indicated at lines 31-34 of page 5, and where "unit-modal transverse oscillation" is indicated at line 4 of page 6. "Unit-modal transverse oscillation" is the same as "single transverse mode oscillation." It is known in the laser art that the width of a resonator cavity portion determines the number of transverse modes that can be supported by that cavity portion. (Please note that the *transverse* mode is different from the *longitudinal* mode.)

Pending Claim 3 is supported by Applicants' priority document at page 1, lines 11-13 of the English translation thereof.

Pending Claim 4 is supported by Applicants' priority document at page 1, lines 14-15 of the English translation thereof.

Pending Claim 9 is supported by Applicants' priority document at page 1, lines 30-35, and page 6, lines 14-18 of the English translation thereof.

Pending Claim 12 is supported by Applicants' priority document at page 10, lines 25-30 of the English translation thereof.

Pending Claim 15 is supported by Applicants' priority document at page 9, lines 10-14 of the English translation thereof.

Pending Claim 16 is supported by Applicants' priority document at page 10, lines 25-30 of the English translation thereof.

Pending Claim 17, is supported by Applicants' priority document at page 8, lines 23-28 of the English translation thereof.

Pending Claim 20 is supported by Applicants' priority document at page 9, lines 10-14 of the English translation thereof.

Each of Claims 25 and 27 are dependent upon dependent Claim 23, which was not rejected as being anticipated by the Shimizu patent. The §103 Rejection of Claim 23 admits that the Shimizu patent does not disclose the subject matter of Claim 23. Pending Claim 23 is supported by Applicants' priority document at page 12, lines 5-8. Pending Claim 25 is supported by Applicants' priority document at page 9, lines 10-14 of the English translation thereof; and

pending Claim 27 is supported by Applicants' priority document at page 1, lines 14-15 of the English translation thereof.

Accordingly, Applicants respectfully submit that they have perfected their claim of priority under 35 U.S.C. §119(a)-(d) to their earlier Japanese patent application 11-162792, and that the Shimizu patent has been removed as a reference against independent Claim 1 and its dependent Claims 3-4, 9, 12, 15-17, 20, 25 and 27. Applicants respectfully request that the Rejection based upon the Shimizu patent be withdrawn.

**Response to the Rejection of Claims 2, 5-8, 10-11, 13-14, 18-19, 21-24, 26 and 28 under 35 U.S.C. § 103(a)**

Claims 2, 5-8, 10-11, 13-14, 18-19, 21-24, 26 and 28 were rejected as being obvious over the Shimizu patent in view of the DeMars patent. The Rejection states that the Shimizu patent does not disclose the subject matters of the rejected claims, but argues that the subject matters would be obvious on the basis that "discovering an optimum value of a result effective variable involves only routine skill in the art." The rejection did not point to any part of the DeMars patent as teaching or suggesting the subject matter of the rejected claims.

Applicants respectfully traverse this §103 rejection on each of the following bases. First, as indicated in sub-section II(B) of section 2144.05 of the M.P.E.P., a parameter must first be recognized by the prior art as being result effective for the particular application at hand before the above type of rejection can be advanced. The Rejection has not established this requisite recognition by the prior art, and for this reason fails to establish a prima facie case of obviousness. For this reason, Applicants respectfully request that the Rejection of these claims based upon the Shimizu patent be withdrawn.

Second, Applicants respectfully submit that removal of the Shimizu patent as a reference against the base independent claim and the intervening dependent claims, as done above, overcomes the Rejection for the following reasons: the Rejection admits that the Shimizu patent does not disclose the subject matter of the rejected claims, and the Rejection relies solely on the Shimizu patent to support the proffered obvious modifications. 37 C.F.R. §1.131 sets forth the Office's procedure and requirements for removing (antedating) a reference with facts

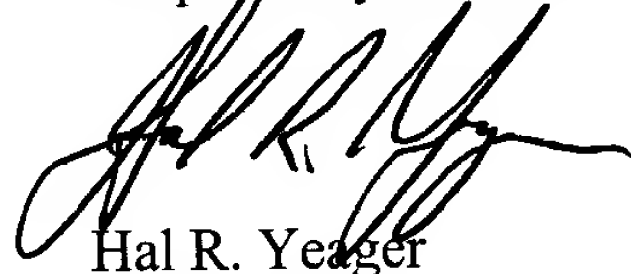
supplied by declaration or oath. While Applicants' action to perfect their claim of priority is not the identical procedure as set forth in 37 C.F.R. §1.131, Applicants submit that the requirements for antedating a reference by perfecting a priority claim should not be any more stringent than the requirements set out for oaths and declarations under 37 C.F.R. §1.131. As to the latter requirements, U.S. courts have held that when an examiner has treated a claim limitation as being an obvious modification of the antedated reference (in this case the Shimizu patent), an applicant's showing under 37 C.F.R. §1.131 is required to show no more than the antedated reference shows with regard to the alleged obvious claim limitation (see, M.P.E.P. § 715.02). Therefore, since the Rejection has admitted that the Shimizu patent (the antedated reference) does not disclose the subject matter of the rejected dependent Claims 2, 5-8, 10-11, 13-14, 18-19, 21-24, 26 and 28, no additional showings beyond those already shown for Claims 1, 3-4, 9, 12, 15-17, 20, 25 and 27 are required.

Accordingly, Applicants respectfully submit that the Shimizu patent has be removed as a reference against dependent Claims 2, 5-8, 10-11, 13-14, 18-19, 21-24, 26 and 28, and that the Rejection based upon the Shimizu patent be withdrawn.

### CONCLUSION

In view of the remarks made above, Applicants respectfully submit that the application is in condition for allowance and action to that end is respectfully solicited. If the Examiner should feel that a telephone interview would be productive in resolving issues in the case, she is invited to telephone the undersigned at the number listed below.

Respectfully submitted,



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Serial No. **09/513,702**  
SANFRANCISCO 4076316v1

**"Version with Markings to Show Changes Made"**

Additions are shown by **bold underlining**, deletions are shown with **[bold brackets]**.

**In the Specification:**

*The paragraph on page 10, lines 6-11 has been rewritten as follows:*

-- In the case of a module that is formed by connecting an optical fiber to the aforesaid device, therefore, return light from the optical fiber is also based on the longitudinal multi-mode, so that oscillation of a laser beam can be restrained from being made unstable by the return light.

**FIG. 10 is a schematic diagram showing the coupling of output light from the laser device to a conventional optical fiber having a fiber Bragg grating, and showing the coupling of return light back to the laser device. --**